## Contents Volume 55, 1991

VOL. 55, NOS. 1-2	1991
Research Papers	
Variation in the height to which tracer is moved by splash during natural summer rain in the UK	
M.W. Shaw (Bristol, UK)	1
Influence of environmental factors on photosynthesis in cocoa trees	
D. Balasimha, E.V. Daniel and P.G. Bhat (Karnataka, India)	13
Leaf conductance of four glasshouse vegetable crops as affected by air humidity  J.C. Bakker (Naaldwijk, The Netherlands)	23
Estimation of the net CO <sub>2</sub> assimilation rate of a maize (Zea mays L.) canopy from leaf chamber measurements	
E. Pattey, P.A. Dubé (Sainte-Foy, Que., Canada), P. Rochette and R.L. Desjardins (Ottawa, Ont., Canada)	37
The relationship of climatic indices and variables to corn (maize) yields: a principal components analysis	31
S.J. Meyer, K.G. Hubbard and D.A. Wilhite (Lincoln, NE, USA)	59
Some applications of syntactic pattern recognition in assessments of temperature conditions in various phenological phases of maize	
Y. Zhang, X. Yu and D. Guan (Shenyang, People's Republic of China)	85
Protecting citrus trees from freezing injury by use of topoclimate in China S.B. Huang (Hangzhou, People's Republic of China)	95
A canopy water balance model for a <i>Pinus radiata</i> stand before and after thinning D. Whitehead (Rotorua, New Zealand) and F.M. Kelliher (Christchurch, New Zealand).	
Evaporation estimates in arid environments: an evaluation of some methods for the Patagonian steppe	
J.M. Paruelo, M.R. Aguiar and R.A. Golluscio (Buenos Aires, Argentina)	127
Foliage temperature and latent heat flux of irrigated wheat F.X. Dunin, A.C.F. Trevitt (Canberra, A.C.T., Australia), H.D. Barrs and W.S. Meyer	
(Griffith, N.S.W., Australia)	133
Modeling canony stomatal conductance in a temperate grassland ecosystem	
J. Kim and S.B. Verma (Lincoln, NE, USA)	149
Momentum rangement of ridge furrow tilled sail	
K.J. McInnes, J.L. Heilman and R.W. Gesch (College Station, TX, USA)	167
VOL. 55, NOS. 3-4 JUNE	1991
Research Papers	
Estimating pan evaporation using limited meteorological observations	
J.E. Cahoon (Lincoln, NE, USA), T.A. Costello and J.A. Ferguson (Arkansas, AR, USA) Application of some of Cauchy's theorems to estimation of surface areas of leaves, needles	18
and branches of plants, and light transmittance	100
A.R.G. Lang (Canberra, A.C.T., Australia)	19

A comparison of methods for measuring the angle and direction of rainfall R.H. Crockford, D.P. Richardson, P.M. Fleming and J.D. Kalma (Canberra, A.C.T.,	
Australia)	213
Estimating the three-dimensional geometry of a maize crop as an input of radiation models: comparison between three-dimensional digitizing and plant profiles	
H. Sinoquet, B. Moulia and R. Bonhomme (Pointe-à-Pitre, Guadeloupe)	233
Determination of potential lengths of the crop growing period in semi-arid regions of Senegal  JL.B. Khalfaoui (Bambey, Senegal)	251
HORTICERN: an improved static model for predicting the energy consumption of a greenhouse	
O. Jolliet, JB. Gay (Lausanne, Switzerland), L. Danloy, G.L. Munday (Geneva, Switzerland) and A. Reist (Conthey, Switzerland)	265
Predicting spatial distribution of direct radiation below forest canopies	
T. Pukkala, T. Kuuluvainen (Joensuu, Finland), P. Becker (Washington, DC, USA) and P. Oker-Blom (Helsinki, Finland)	295
Infrared thermometer calibration and viewing method effects on canopy temperature measurement	
D.F. Wanjura and D.R. Upchurch (Lubbock, TX, USA)	309
Modeling radiative transfer and photosynthesis in three-dimensional vegetation canopies R.B. Myneni (Greenbelt, MD, USA)	
Short Communication	
Effects of two and a half years of atmospheric CO <sub>2</sub> enrichment on the root density distribution of three-year-old sour orange trees	
S.B. Idso and B.A. Kimball (Phoenix, AZ, USA)	345
Announcement	351
Contents of Vol. 55 (1991)	353

